

aspirin, beta-blockers and ACE-inhibitors markedly reduced it (OR= 1.1; 95% CI 0.63-1.9). **Conclusions:** MI pts with CRF are older, have more co-morbidities, present with higher Killip class and are more likely to experience complications and death. The underuse of evidence-based medicine may contribute to poor outcome and needs further evaluation.

#### Clinical characteristics, in-hospital procedures/therapies, and complications

|                       | Renal Failure<br>n=132 | No Renal Failure<br>n=1551 | P      |
|-----------------------|------------------------|----------------------------|--------|
| Age, years (sd)       | 76 (11)                | 65 (14)                    | <0.001 |
| Women                 | 32 (24%)               | 419 (27%)                  | <0.5   |
| Hypertension          | 83 (65%)               | 707 (46%)                  | <0.001 |
| Diabetes              | 55 (43%)               | 477 (31%)                  | <0.006 |
| Prior MI              | 54 (42%)               | 405 (27%)                  | <0.001 |
| Killip>1 on admission | 67 (51%)               | 357 (23%)                  | <0.001 |
| Q wave MI             | 59 (45%)               | 962 (62%)                  | <0.001 |
| Thrombolysis          | 20 (15%)               | 457 (30%)                  | <0.001 |
| Coronary angio'       | 33 (26%)               | 703 (46%)                  | <0.001 |
| PCI-in hospital       | 20 (16%)               | 434 (29%)                  | <0.002 |
| Aspirin               | 106 (84%)              | 1479 (96%)                 | <0.001 |
| ACE-inhibitors        | 49 (51%)               | 887 (63%)                  | <0.01  |
| Beta-blockers         | 53 (54%)               | 1028 (74%)                 | <0.001 |
| Heart failure         | 44 (36%)               | 308 (21%)                  | <0.001 |
| Atrial fibrillation   | 20 (16%)               | 132 (9%)                   | <0.009 |
| Sepsis                | 12 (9%)                | 42 (3%)                    | <0.001 |
| Acute renal failure   | 80 (63%)               | 97 (6%)                    | <0.001 |

1145-46

#### Chlamydia pneumoniae Infection and Classic Risk Factors in the Prediction of Acute Myocardial Infarction

Kunihiro Kinjo, Hiroshi Sato, Hideyuki Sato, Issei Shiotani, Yozo Ohnishi, Daisaku Nakatani, Hiroya Mizuno, Eiji Hishida, Yasuhiko Matsu-ura, Yoshiyuki Kijima, Masatsugu Hori, *Osaka University Graduate School of Medicine, Suita, Japan.*

**Background:** Several seroepidemiologic studies have shown an association between Chlamydia pneumoniae infection and the presence of coronary artery disease (CAD) or the risk for acute coronary events. Since it has been suggested that C. pneumoniae infection can interact with several classic risk factors of CAD, C. pneumoniae infection may enhance the effect of classic risk factors on the onset of AMI.

**Methods:** The case group consisted of 607 patients with AMI. Control group consisted of 275 subjects without history of definite or suspected coronary heart disease who underwent medical examination. Total subjects were tested for specific C. pneumoniae IgG and IgA antibodies by ELISA and were also assessed for classic risk factors, i.e., age, sex, obesity, diabetes mellitus, hypertension, hyperlipidemia, low-HDL cholesterol, and smoking habit. Logistic regression model was used to identify an independent predictor of the onset of AMI.

**Results:** Prevalence of seropositivity for IgA antibody in the case group was significantly higher than in the control group (29% vs. 15%;  $p<0.01$ ), but prevalence of seropositivity for IgG antibody was similar in the both groups (17% vs. 16%;  $p=0.73$ ). In all study populations, seropositivity for IgA antibody was not an independent predictor of the onset of AMI by multivariate analysis (odds ratio, 1.49; 95% confidence interval, 0.90-2.45). However, subgroup analysis revealed that prevalence of seropositivity for IgA antibody was an independent predictor of the onset of AMI in patients of <60 years (2.39; 1.11-5.11), male patients (1.86; 1.09-3.17), patients with hyperlipidemia (2.42; 1.14-5.12), and smokers (1.85; 1.02-3.34).

**Conclusion:** C. pneumoniae infection enhances the effect of classic risk factors on the onset of AMI, especially in patients with hyperlipidemia and in smokers. Thus, measurement of IgA antibody to C pneumoniae may increase the predictive value of coronary risk factors for the onset of AMI.

1145-47

#### Effect of Three-Month Antimicrobial Treatment With Clarithromycin in Acute Non-Q Wave Coronary Syndrome

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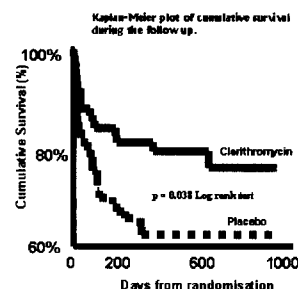
**Background:** Coronary artery disease is accepted to be an inflammatory disease and infections have been postulated as one of the reasons for this inflammation. We investigated whether the antibiotic clarithromycin would reduce morbidity and mortality in patients presenting with an acute non-Q-wave coronary syndrome.

**Methods:** 148 patients with an acute non-Q-wave infarction or unstable angina were randomly assigned to receive double-blind treatment with either clarithromycin or placebo (74 patients in both groups) for 3 months. The primary endpoint was occurrence of the composite of death, myocardial infarction, or refractory ischemia during the treatment; the secondary endpoint was occurrence of any cardiovascular event during the whole follow up (average 555 days, range 138 to 924 days).

**Results:** There was a trend towards fewer patients meeting the endpoint criteria in the clarithromycin group when compared with placebo group (11 vs. 19 patients, respectively; Cox regression analysis risk ratio 0.54; 95% CI 0.25-1.14;  $p=0.10$ ) during the 3 months medication. By the end of the whole follow up period, 16 patients in the clarithromycin group and 27 patients in the placebo group experienced any cardiovascular event

(risk ratio 0.49; 95% CI 0.26-0.92;  $p=0.03$ ).

**Conclusion:** Clarithromycin seems to reduce the risk of ischemic cardiovascular events in patients presenting with an acute non-Q-wave infarction or unstable angina. No signs of this effect becoming smaller were observed during the follow up.



1145-48

#### Deterioration of Risk Factors is Not a Major Determinant of Coronary Events in Depressive Patients With Acute Myocardial Infarction

Issei Shiotani, Hiroshi Sato, Hideyuki Sato, Kunihiro Kinjo, Daisaku Nakatani, Hiroya Mizuno, Eiji Hishida, Yozo Ohnishi, Seiki Nagata, Noritake Houki, Masatsugu Hori, *Osaka University, Suita, Japan.*

**Background:** It has been reported that depressive symptoms increase a risk for cardiac events and worsen clinical outcomes both in healthy subjects and in patients with acute myocardial infarction (AMI). However, mechanisms in which depressive symptoms cause coronary events have not been elucidated. The aim of the present study is to test a hypothesis that depression deteriorates coronary risk factors and hence increases a risk for coronary event in normal subjects and in patients with AMI. **Methods:** Of consecutive 1229 patients with AMI were registered to Osaka Acute Coronary Insufficiency Study from September 1999 through January 2001, 854 patients who survived and discharged from hospital without any clinical disabilities were enrolled in this study (670 men; mean age  $64\pm 11$  y.o.). Healthy subjects were selected from outpatient clinic for medical checkup ( $n=1083$ ; 627 men; mean age  $49\pm 10$  y.o.). Depression was assessed using the Zung Self-Rating Depression Scale (SDS). Subject with a score of 40 or higher was diagnosed as depression. **Results:** The SDS score identified depression in 276 healthy subjects (25.5%) and 361 patients (42.3%) with AMI ( $p<0.0001$ ). Prevalence of depression was associated with women ( $p=0.071$ ) and young population ( $p=0.065$ ) in healthy subjects, however was not associated with other coronary risk factors. Whereas in patients with AMI, prevalence of depression was not dependent of age, gender, severity of myocardial infarction (Killip class, number of disease vessels, peak-CK), and coronary risk factors except diabetes mellitus. Multiple logistic regression analyses showed that depressive status in patients with AMI was significantly associated with 1-year cardiac events (odds ratio 1.45, 96%CI 1.03-2.04,  $p=0.036$ ), after controlling coronary risk factors, e.g. diabetes mellitus, hypertension, hypercholesterolemia, smoking, gout, and obesity. **Conclusion:** Depression does not deteriorate coronary risk factors in healthy subjects. Furthermore, depression is an independent predictor of 1-year cardiac event after controlling risk factors, indicating that deterioration of risk factors may not be a major determinant of coronary events in depressive population.

#### POSTER SESSION

#### 1146 Prediction of Risk in Acute Myocardial Infarction

Tuesday, March 19, 2002, 9:00 a.m.-11:00 a.m.

Georgia World Congress Center, Hall G

Presentation Hour: 10:00 a.m.-11:00 a.m.

1146-31

#### BNP Identifies Patients With Optimal Reperfusion After PTCA for Acute Myocardial Infarction

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**Background:** Brain Natriuretic Peptide evaluate the effect of revascularization on (BNP) is an hormone synthesized by ventricular myocytes, which has been reported to be increased during acute myocardial infarction (AMI). In order to the level of BNP, we measured its concentration in 60 consecutive patients hospitalized for AMI. They were classified into Group A : patients in which PTCA restore Timi III flow in the infarct-related artery ( $N=54$ ), and Group B ( $N=6$ ) : patients in which no successful PTCA was performed.

**Methods:** BNP was measured every 30 minutes during the first 4 hours after admission and every 2 hours during the next 12 hours. BNP was measured using the IRMA test (Cis Bio laboratories). Reperfusion was performed by angioplasty with direct stenting and was effective in all  $240\pm 30$  minutes after the onset of chest pain.

**Results:** In Group A , average BNP measured level fell 30 minutes after restoration of TIMI 3 flow in the infarct-related artery. The relative variation of the mean level after PTCA was  $-58\pm 16\%$ ,  $p<0.0001$ . In Group B there was no significant variation of BNP.

**Conclusion:** Decrease in the level of plasma BNP appears to be a clinically relevant biological marker of reperfusion during acute AMI.